



CLASS I SERVICE INSTRUCTIONS

19, 23, 24

No. 0824-035, Rev. II
ATA Code 57-10
Recurring Inspection

SUBJECT: WINGS - INSPECTION OF THE MAIN SPAR

SYNOPSIS OF CHANGE: Added additional inspection requirements.

EFFECTIVITY: BEECHCRAFT 19 series;
23 series;
24 and 24R series;
that are five years old or older, except those affected by the Note in the COMPLIANCE Section.

REASON: To inspect for possible corrosion.

COMPLIANCE: Beech Aircraft Corporation considers this inspection mandatory on the above airplanes that are five years old or older and, except as noted below, should be accomplished at the next 100 hour or annual inspection and at each annual inspection thereafter.

NOTE

Special emphasis should be placed on airplanes that have been operated and/or stored for extended periods in areas where geographical location and atmospheric conditions are highly conducive to corrosion. If the history of the airplane is unknown, it should be assumed that the airplane has been operated in an environment highly conducive to corrosion. On airplanes falling in this category, it is recommended the inspection be accomplished as soon as possible after receipt of these Service Instructions and at each annual inspection thereafter.

DESCRIPTION: The wing tip is removed and access holes are cut for visual inspection of the wing main spar for corrosion.

NOTE

The extent of the corrosion inspection should not be limited to the area of the wing main spar. The entire airplane, including all compartments and interior airplane cavities, should be inspected for evidence of corrosion at

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Beech Aircraft Corporation issues service information for the benefit of owners and fixed base operators in the form of three classes of Service Instructions. CLASS I (Red Border) are changes, inspections, and modifications that could affect safety. The factory considers compliance mandatory. CLASS II (Green Border) covers changes, modifications, improvements or inspections the factory feels will benefit the owner and although highly recommended, they are not considered mandatory compliance, unless specified at the time of issuance. Class I and II are mailed to:

- (a) BEECHCRAFT Aero or Aviation Centers and International Distributors and Dealers.
- (b) Owners of record on the FAA Registration list and the

BEECHCRAFT International Owner Notification Service List.
(c) Those having a publications subscription.

CLASS III (No Border) covers changes which are optional, maintenance aids, product improvement kits and miscellaneous service information. Compliance is at the owner or operator's prerogative. Copies of Class III are distributed per a and c above. Information on Owner Notification Service or Subscriptions can be obtained through any BEECHCRAFT Aero or Aviation Center, International Distributor and Dealer, or the Factory. As Service Instructions are issued, temporary notation in the index should be made until the index is revised. Warranty will be allowed only when specifically defined in the Service Instructions and in accordance with Beech Warranty Policy.

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each annual inspection in accordance with FAA Advisory Circular, AC 43-4 or subsequent and Federal Aviation Regulations, Part 43, Appendix D, or subsequent.

APPROVAL: FAA Approved - DOA CE-2.

MANPOWER: The following information is for planning purposes only:

Estimated man-hours for initial inspection: 6 hours.
Estimated man-hours for recurring inspection: 2 hours.
Suggested number of men for inspection: 1 man.

MATERIAL: The following parts required for the accomplishment of these Service Instructions are available through your BEECHCRAFT Parts and Service Outlet. These parts are only required for the initial inspection.

PART NUMBER	DESCRIPTION	QUANTITY
A6914-1024-1	Cover	As required
169-110000-199	Door	As required
169-110000-197	Doubler	As required
AN525-832R6*	Screw	As required
130006A832BC**	Nut Plate	As required

*Minimum buy quantity of 100 parts

**Minimum buy quantity of 10 parts

The value of the material required for the incorporation of these Service Instructions on one airplane is to be advised. Price, when issued, will be subject to change without notice.

WARRANTY: None.

SPECIAL TOOLS: None.

WEIGHT AND BALANCE: None.

REFERENCES: BEECHCRAFT 19, 23 and 24 Shop Manual, P/N 169-590015F or subsequent; FAA Advisory Circular, AC43-4, or subsequent, and AC43.13-1A, or subsequent.

PUBLICATIONS AFFECTED: It is recommended that a note to "See Service Instructions No. 0824-035, Rev. II" be made in all 19, 23 and 24 Parts Catalog copies, P/N 169-590012I or subsequent, figure 32.

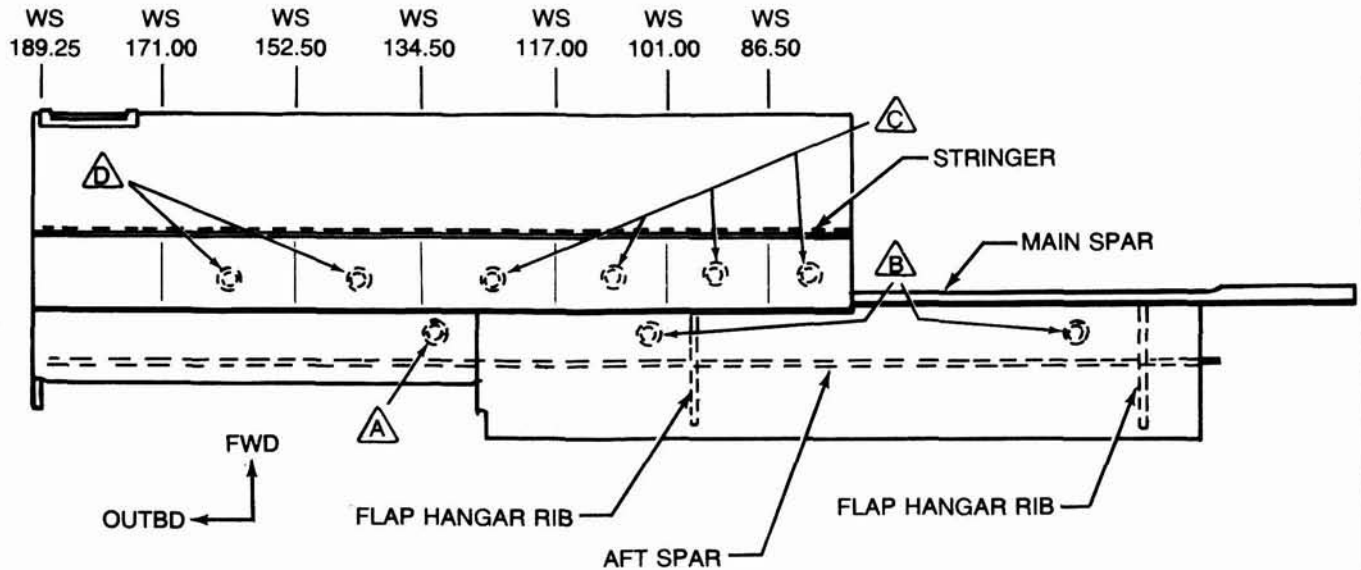
ACCOMPLISHMENT INSTRUCTIONS: These Service Instructions may be accomplished as follows:





PART I: Applies only to fixed landing gear airplanes.

1. Remove the LH and RH wing tips.
2. On the LH and RH wing, cut a 5.0-inch diameter hole at W.S. 133, centered between the main spar and aft spar as shown in the illustration at position "A" located on the bottom of the wing.

NOTE

The 5.0-inch diameter hole at W.S. 133 will only be required on the following airplane serials: MB-1 through MB-813, MB-815 and MB-816; M-1 through M-1874, M-1876 through M-1879; MA-1 through MA-368.



-  Required for corrosion inspection.
-  Required for corrosion inspection on fixed landing gear airplanes.
-  Permissible access for treatment of corrosion forward of main spar on fixed landing gear airplanes only.
-  Permissible access for treatment of corrosion forward of main spar.

3. On the LH and RH wing, cut a 5.0-inch diameter hole at W.S. 104 and W.S. 44, centered between the main spar and the aft spar as shown in the illustration at position "B" located on the bottom of the wing.
4. Visually inspect the aft side of the wing main spars through the access openings and the forward side of the wing main spars through the spar lightning holes from the fuselage to the wing tip in accordance with procedures in FAA Advisory Circular AC43-4, or subsequent revision for corrosion.
5. If no corrosion is found, proceed to step 7 and 8.

NOTE

For those airplanes operated in areas that are highly conducive to corrosion and/or do not have internal corrosion proofing, Beech Aircraft Corporation recommends the wing main spars be cleaned and corrosion treated at this time, even though no corrosion exists.

6. If corrosion is found in the LH and/or RH wing, clean and treat the corrosion in accordance with instructions in FAA Advisory Circular AC43-4 and AC43.13-1A or subsequent revisions.
 - a. For cleaning and treatment of corrosion forward of the aileron, it may be necessary to remove the aileron, the aft wing closure strip forward of the aileron and the wing tip. (Ref. 19, 23, and 24 Shop Manual.)
 - b. For cleaning and treatment of corrosion forward of the flap, it may be necessary to remove the flap and the aft wing closure strip forward of the flap. (Ref. 19, 23 and 24 Shop Manual.)
 - c. For cleaning and treatment of corrosion between the wing main spar and the fuel tank, it may be necessary to remove the wing from the airplane and remove the fuel tank from the wing. (Ref. 19, 23 and 24 Shop Manual.)
 - d. For cleaning and treatment of corrosion forward of the wing main spar, it is permissible to cut a 5.0-inch diameter hole between the main spar and the first stringer forward of the main spar, centered between ribs as shown in the illustration at position "C" and "D" located on the bottom of the wing.

NOTE

If unusual conditions are found which cannot be resolved locally, send several good quality color photographs, a drawing or sketch and a comprehensive description of the affected area to Customer Service Department, Beech Aircraft Corporation, P. O. Box 300, Liberal, Kansas 67901, for evaluation and recommended action to be taken.

7. Install doublers and doors on each of the 5.0-inch diameter holes cut for the inspection and corrosion treatment as follows:

- a. Install eight equally spaced P/N 130006A832BC nut plates on a P/N 169-110000-197 doubler using P/N MS20426AD3-4 rivets. (Obtain rivets locally.)
- b. Install the doubler inside the wing centered on the 5.0-inch diameter hole using sixteen P/N MS20426AD3-4 rivets equally spaced around the doubler.
- c. Install a P/N 169-110000-199 door on the doubler using eight P/N AN525-832R6 screws per door.
- d. Clean and paint the doors to match the airplane.

8. Reinstall the wing tips.

PART II: Applies only to retractable landing gear airplanes.

1. Remove the LH and RH wing tips.
2. On the LH and RH wing, cut a 5.0-inch diameter hole at W.S. 133, centered between the main spar and the aft spar as shown in the illustration at position "A" located on the bottom of the wing.

NOTE

The 5.0-inch diameter hole at W.S. 133 will only be required on the following airplane serials: MC-2 through MC-310, MC-312 through MC-448, MC-450 and MC-451.

3. Remove all access panels on the bottom of both wings to provide access to the wing main spar.
4. Visually inspect the aft side of the wing main spars through the access openings and the forward side of the wing main spars through the spar lightning holes from the fuselage to the wing tip in accordance with procedures in FAA Advisory Circular AC43-4 or subsequent revision, for corrosion.
5. If no corrosion is found, proceed to step 7, 8, and 9.

NOTE

For those airplanes operated in areas that are highly conducive to corrosion and/or do not have internal corrosion proofing, Beech Aircraft Corporation recommends the wing main spars be cleaned and corrosion treated at this time, even though no corrosion exists.

6. If corrosion is found in the LH and/or RH wing, clean and treat the corrosion in accordance with instructions in FAA Advisory Circular AC43-4 and AC43.13-1A, or subsequent revision.

- a. For cleaning and treatment of corrosion forward of the aileron, it may be necessary to remove the aileron, the aft wing closure strip forward of the aileron and the wing tip. (Ref. 19, 23, and 24 Shop Manual.)
- b. For cleaning and treatment of corrosion forward of the flap, it may be necessary to remove the flap and the aft wing closure strip forward of the flap. (Ref. 19, 23 and 24 Shop Manual.)
- c. For cleaning and treatment of corrosion between the wing main spar and the fuel

tank, it may be necessary to remove the wing from the airplane and remove the fuel tank from the wing. (Ref. 19, 23, and 24 Shop Manual.)

d. For cleaning and treatment of corrosion forward of the wing main spar, it is permissible to cut a 5.0-inch diameter hole between the main spar and the first stringer forward of the main spar, centered between ribs as shown in the illustration at position "D" located on the bottom of the wing.

NOTE

If unusual conditions are found which cannot be resolved locally, send several good quality color photographs, a drawing or sketch and a comprehensive description of the affected area to Customer Service Department, Beech Aircraft Corporation, P. O. Box 300, Liberal, Kansas 67901, for evaluation and recommended action to be taken.

7. Install doublers and doors on each of the 5.0-inch diameter holes cut for the inspection and corrosion treatment as follows:

a. Install eight equally spaced P/N 130006A832BC nut plates on a P/N 169-110000-197 doubler using P/N MS20426AD3-4 rivets. (Obtain rivets locally.)

b. Install the doubler inside the wing centered on the 5.0-inch diameter hole using sixteen P/N MS20426AD3-4 rivets equally spaced around the doubler.

c. Install a P/N 169-110000-199 door on the doubler using eight P/N AN525-832R6 screws per door.

d. Clean and paint the doors to match the airplane.

8. Reinstall the access panels on the bottom of both wings that were removed in step 3.

9. Reinstall the wing tips.

RECORD COMPLIANCE:

Upon completion of these Service Instructions, make an appropriate maintenance record entry.